

AMENDMENTS

In the claims:

1. (Currently Amended) A method for detecting the presence of an analyte in a sample, said method comprising:

(a) combining said sample with at least two derivatizing agents to form a combination of at least two predetermined derivatives of said analyte;

(b)(a) subjecting said a combination of at least two predetermined derivatives of said analyte to chromatographic separation;

(c)(b) determining the retention times and ratio of said derivatives as a result of said chromatographic separation; and

(d)(e) using said retention times and ratio to detect the presence of said analyte in said sample..

2. (Original) A method according to Claim 1 wherein said chromatographic separation is selected from the group consisting of gas chromatography, liquid chromatography, electrophoretic chromatography and combinations thereof.

3. (Original) A method according to Claim 1 further comprising detecting a response from each of said derivatives and determining the intensities thereof, the number of intensities of said responses being related to the presence and/or amount of said analyte in said sample.

4. (Original) A method according to Claim 3 wherein said detecting is conducted visually, spectrophotometrically, thermally, electrically, mechanically or electromechanically.

5. (Original) A method according to Claim 1 wherein said analyte is selected from the group consisting of drugs of abuse, pharmaceutical drugs, metabolites, pesticides, pollutants, nucleotides, polynucleotides, polysaccharides, amino acids and poly(amino acids).

6. (Original) A method according to Claim 1 wherein said derivatives are formed in situ.

7. (Currently Amended) A method for detecting the presence and/or amount of an analyte in a sample suspected of containing said analyte, said method comprising:

(a) combining said sample with at least two derivatizing agents to form a combination of at least two derivatives of said analyte;

(b)(a) subjecting said a-combination comprising of at least two predetermined derivatives of said analyte to chromatographic separation to separate said derivatives;

(c)(b) subjecting said separated derivatives exiting from said chromatographic separation to ionization to form ions of said derivatives;

(d)(e) detecting a response from each of said ions; and

(e)(d) determining the retention times of said ions and the ratios of the intensities of said responses; and

(f)(e) using said retention times and said ratios to detect the presence and/or amount of said analyte in said sample.

8. (Original) A method according to Claim 7 wherein said analyte is selected from the group consisting of drugs of abuse, pharmaceutical drugs, metabolites, pesticides, pollutants, nucleotides, polynucleotides, polysaccharides, amino acids and poly(amino acids).

9. (Original) A method according to Claim 7 wherein said analyte is a drug of abuse.

10. (Original) A method according to Claim 7 wherein said ionization is selected from the group consisting of chemical ionization, electrospray ionization, electron impact ionization, photoionization, and electron capture ionization.

11. (Original) A method according to Claim 7 wherein said derivatives are formed in situ.

12. (Original) A method according to Claim 7 wherein said detecting comprises subjecting said ions to mass analysis.

13. (Currently Amended) A method for detecting the presence and/or amount of a drug in a sample suspected of containing said drug, said method comprising:

(a) combining said sample with at least two predetermined derivatizing agents to form derivatives of said drug-analyte,

(b) subjecting said derivatives to gas chromatographic separation to separate said derivatives,

(c) subjecting said separated derivatives to chemical ionization to form ions thereof;

(d) subjecting said ions to mass analysis and detecting a response therefrom;

(e) determining the retention times of said ions and the ratios of the intensities of said responses; and

(f) using said retention times and said ratios to determine the presence and/or amount of said drug in said sample.

14. (Original) A method according to Claim 13 wherein said chemical ionization comprises negative ion chemical ionization.

15. (Original) A method according to Claim 13 wherein said drug is a drug of abuse.

16. (Original) A method according to Claim 13 wherein said derivatizing agents are selected from the group consisting of organic acids, organic acid anhydrides, amines, alcohols, esters, organometallic compounds and complexing agents.

17. (Original) A method according to Claim 13 wherein said derivatizing agents comprise at least one halogen moiety.

18. (Original) A method according to Claim 13 wherein said drug of abuse is selected from the group consisting of alkoloids, steroids, lactams, aminoalkylbenzenes and benzyheterocycics.

19. (Currently Amended) A method for detecting the presence and/or amount of a drug of abuse in a sample suspected of containing said drug of abuse, said method comprising:

- (a) combining said sample with at least two predetermined derivatizing agents,
- (b) subjecting said combination to conditions under which derivatives of said drug analyte are formed,
- (c) subjecting said derivatives to gas chromatographic separation to separate said derivatives,
- (d) subjecting said derivatives to negative ion chemical ionization to form negative ions of said derivatives,
- (e) subjecting said ions to mass analysis and detecting a response therefrom,
- (f) determining the retention times of said ions and the ratios of the intensities of said responses, and
- (g) using said retention times and said ratios to detect the presence and/or amount of said drug in said sample.

20. (Original) A method according to Claim 19 wherein said derivatizing agents are selected from the group consisting of organic acids, organic acid anhydrides, amines, alcohols, esters, organometallic compounds and complexing agents.

21. (Original) A method according to Claim 19 wherein said derivatizing agents comprise at least one halogen moiety.
22. (Original) A method according to Claim 19 wherein said drug of abuse is selected from the group consisting of alkaloids, steroids, lactams, aminoalkylbenzenes and benz heterocyclics.